



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/761,281

01/22/2004

Jun Iijima

02410267D1

3175

7590

06/17/2004

McGuireWoods LLP  
Suite 1800  
1750 Tysons Boulevard  
McLean, VA 22102

EXAMINER

HANLEY, JOHN C

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/761,281	<b>Applicant(s)</b> IIJIMA ET AL.	
	<b>Examiner</b> John C Hanley	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 1-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10214154.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/22/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

Art Unit: 2856

**DETAILED ACTION**

***Specification***

1. The disclosure is objected to because of the following informalities:

The extensive claim language in Summary of the invention is not in accordance with 37 CFR 1.73 or MPEP § 608.01(d).

A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

Appropriate correction is required.

***Claim Objections***

2. Claims 1-22 are objected to because of the following informalities:

Regarding claim 1, the phrase "or in proximity to" in line 12 is inconsistent with the limitation in line 3 that the lead is connected to the terminal portion. Regarding claim 5, "being formed in the accommodating groove" is objected to since the terminal fitting portion 54 is not shown in the groove 52 in Figure 4. Regarding claims 7, 16 and 20, "in a state that the terminal portion is fitted into the holder portion" is unclear as structural description of the weld. The terminal portion is already claimed in that "state" in claims 1, 10 and 19, respectively, as well as the welded wire. Regarding claims 9, 18 and 22, "a substantially flat plate" is not properly descriptive of a terminal with several bends. Regarding claim 10 and its dependent claims, the projection "one end" and "outer end" do not provide consistent antecedent basis for "the single rod-like projection" in claim 12 or "the other end side" in claim 14. Further regarding claim 10, the two

Art Unit: 2856

"wherein" clauses at the end of the claim are objected to for couching structural limitations in method terminology, especially where the elements used in the method are not even depicted in the drawings. Regarding claim 19, the last clause describing the rod-like projection is objected to because the projection is defined in terms of elements that are not a part of the sensor, and it is unclear what surface is the front surface of the resin sealed portion. Further, it is not clear where the cavity is, or what the outside is referring to. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Regarding claim 14, a flange is not defined in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2856

7. Regarding claim 14, it is not clear what the flange portion is, and where the "other end side" of the rod-like projection is.

8. Regarding claim 15, it is not clear what surface is the front surface of the resin-sealed portion is, and where the concave portion is in the resin.

9. Claim 12 is rejected under 35 U.S.C. 112, fourth paragraph, as for failing to further limit claim 11.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-13 and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakane et al (US-6291990) in view of applicant's admissions.

12. Nakane shows a speed sensor including a detection element 2 having at least one lead, at least one terminal portion 4 electrically connected to the lead of the detection element; a holder portion 6 for holding the detection element and for fitting terminal portions 4a,4b,4c; wires 31a-c soldered to the opposite ends of the terminals; a resin sealing portion 5 that holds the detection element and terminal(s); and the lead(s) of the detection element are brought into proximity to a predetermined end location of the terminals when they are fit in the holder. A bent portion is formed in the terminal portion near the predetermined location (Figure 4D). The detection element is disposed on an end portion of the holder. The holder includes a groove 16a-c

Art Unit: 2856

for the terminal portion, and a shield plate formed by the PC board between the grooves. The terminal includes a holding portion or notch (Figure 11) for holding the electric wire in a bundled state near where the wire is soldered. The terminal is bent from a flat plate. A rod-like projection or mold pin 47 is used to hold the resin portion in a mold for injecting the resin. A concave portion in the resin is found near the molding-pin hole for the round magnet, and also in the front face at 5C (Figure 4E). Official notice is taken regarding the known use of metal used in an electrical conductor. Applicant admits that welding is a known technique for electrically connecting a wire, terminal, and/or leads.

13. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to weld the wires 31a-c of Nakane et al to the terminals 4a'-c', and to do the same to connect the other ends of the terminals to the detector leads, as admitted by applicant, for electrically connecting these elements. It would have been further obvious to use metal for the terminals, since metal is a known conductor. It would have been further obvious to bend the terminals near the wire connection point to arrange the direction of the wire exit in any convenient or desired direction to accommodate the sensor fitting in a particular location. Further, it would have been obvious to make the cross-section of the rod in any holdable shape so it can be gripped for its intended use of holding elements in a mold cavity.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C Hanley whose telephone number is 571-272-2195. The examiner can normally be reached on M-F 9AM-5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The

Art Unit: 2856

fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCH



HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800